

Claims:

1. A method of texturing a glass surface, the method comprising the steps of:
 - coating the glass surface with a material film,
 - 5 - stimulating a reaction at the interface between the glass and the material film resulting in the formation of reaction products at the interface, and
 - removing the material film and the reaction products from the glass surface.
2. The method as claimed in claim 1, wherein the step of stimulating the reaction at the interface comprises a thermal annealing process.
- 10 3. The method as claimed in claim 2, wherein the thermal annealing process comprises a sequence of annealing steps at different temperatures.
- 15 4. The method as claimed in claims 1 or 2, wherein the thermal annealing process is conducted in a controlled ambient atmosphere.
- 20 5. The method as claimed in any one of the preceding claims, wherein the material film comprises a single material or compound material.
6. The method as claimed in any one of the preceding claims, wherein the glass surface is initially substantially flat.
- 25 7. The method as claimed in any one of the preceding claims, wherein the material film comprises aluminium.
8. The method as claimed in claim 7, wherein the reaction products comprise aluminium oxide and/or silicon.

9. The method as claimed in any one of the preceding claims, wherein the step of removing the material film and the reaction products comprises one or more etching steps.

5 10. The method as claimed in claim 9, wherein the etching steps comprise a chemical etch.

11. The method as claimed in any one of the preceding claims, wherein the glass comprises quartz, float glass, or non-float glass.

10 12. A method of manufacturing a photovoltaic device, the method comprises the steps of texturing a glass surface utilising a method as claimed in any one of the preceding claims, and depositing a semiconductor film on the textured glass surface, whereby the glass-facing surface of the semiconductor film exhibits 15 substantially the same degree of texture as the glass surface.

13. The method as claimed in claim 12, wherein the semiconductor film is deposited in a manner such that substantially no gaps or voids exist between the textured glass surface and the semiconductor film.

20 14. The method as claimed in claims 12 or 13, wherein the method further comprises forming a dielectric barrier layer between the glass and the semiconductor.

25 15. The method as claimed in claim 14, wherein the dielectric layer is formed on the textured glass surface prior to the deposition of the semiconductor film.

16. The method as claimed in claims 14 or 15, wherein the barrier layer comprises silicon oxide or silicon nitride.

17. The method as claimed in any one of claims 12 to 16, wherein the semiconductor film comprises a crystalline and/or an amorphous semiconductor material.

5 18. The method as claimed in claim 17, wherein the semiconductor material comprises silicon.

19. A textured glass surface formed utilising a method as claimed in any one of claims 1 to 11.

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20. A photovoltaic device manufactured utilising a method as claimed in any one of claims 12 to 18.

21. A photovoltaic device comprising:

15 - a glass pane having a textured surface;
- a semiconductor film formed on the textured surface of the glass pane and having an internal absorption efficiency greater than about 0.5 for photons in a wavelength range from about 600 to 1200 nm.

20 22. A method of texturing a glass surface, substantially as herein described with reference to the accompanying drawings.

23. A method of manufacturing a photovoltaic device, substantially as herein described with reference to the accompanying drawings.

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24. A textured glass surface, substantially as herein described with reference to the accompanying drawings.

30 25. A photovoltaic device, substantially as herein described with reference to the accompanying drawings.